

REMARKS/ARGUMENTS

Applicants received the Final Office Action dated August 24, 2006, in which the Examiner: 1) rejected claims 27-31, 33-40 and 42-44 under 35 U.S.C. § 102(e) as being anticipated by Edlund et al. (U.S. Pub. No. 2002/0114984, hereinafter "Edlund"); and 2) rejected claims 31 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Edlund and further in view of LaPierre et al. (U.S. Pat. No. 6,348,278, hereinafter "LaPierre"). With this Response, Applicants amend claims 27, 29, and 36, and cancel claims 33, 35, 39, 42, and 44.

Edlund is directed to proton exchange membrane (PEM) and alkaline types of fuel cells. Para. [0023]. Unlike solid oxide fuel cells, the types of fuel cells disclosed in Edlund need not be substantially heated for the fuel cell to operate. Accordingly, Edlund does not disclose a mechanism or even a desire to heat fuel cells during a start up process. As the Examiner has noted, Edlund does disclose the use of re-circulated hydrogen (para. [0040]) for purposes of increasing fuel cell efficiency, but not for purposes of heating the fuel cell to speed up the start up process.

Claim 27 has been amended to require "a structure that promotes an exothermic reaction using hydrogen from said hydrogen storage unit, wherein heat from said exothermic reaction heats said fuel cell stack to speed up fuel cell startup." Edlund does not disclose this limitation. No other art of record satisfies this deficiency of Edlund. Dependent claim 33 (now canceled), required a "heating means for speeding up fuel cell startup." The Examiner alleged that Edlund's paras. [0033, 0036, 0059-0061] disclosed this limitation. Applicants find no such teaching in those paragraphs, or elsewhere in Edlund. Those paragraphs disclose the use of stored hydrogen to supply the demand for hydrogen when the fuel cell is starting up "[u]ntil fuel processor 12 is able to start producing suitable amounts of hydrogen gas." Para. [0059]. Further, the stored hydrogen is also used in "times of increased demand, meaning times when the demand for hydrogen gas by the fuel cell stack exceeds the output of the fuel processor, the stored hydrogen may be used to supplement the supply of hydrogen from the fuel processor to the fuel cell stack." Para. [0061]. Nowhere

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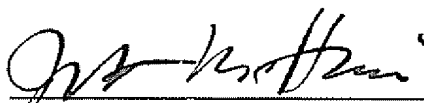
does Edlund teach or even suggest using stored hydrogen to initially heat up the fuel cell stack.

For at least this reason, claim 27 is allowable. For at least this same reason as for claim 27, all claims that depend from claim 27 are also patentable.

The same or similar amendments have been made to independent claim 36. Accordingly, claim 36 and its dependent claims are in condition for allowance for much the same reasons as articulate above.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,



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